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ODONTOGENIC FIBROMYXOMA: REPORT OF A CASE

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The odontogenic fibromyxoma is a tumor apparently arising from components of the dental papilla, the dental follicle or the periodontal ligament.<sup>1</sup> This theory of origin is supported by the fact that the lesion occurs almost exclusively in tooth bearing areas with the mandible being the most frequent site. When the maxilla is affected, the lesion may invade the antrum, produce exophthalmos, and result in migration of teeth. The tumor is non-encapsulated and while slow growing, is locally aggressive. It is nonmetastasizing and most often occurs between 10 and 50 years of age.<sup>2</sup> The lesion is usually associated with an impacted or missing tooth and may result in expansion of the jaw.<sup>3</sup>

The odontogenic fibromyxoma is not radiosensitive but has been successfully treated by many modalities to include simple enucleation and curettage, chemical or electrocautery, local enbloc excision, and hemimandibulectomy,<sup>2-7</sup> depending on individual treatment preferences and extent of the lesion.

#### Case Report

A well-developed, well-nourished 35-year old caucasian male was referred to the oral surgery clinic in May, 1977, for evaluation of an expansion of alveolar bone in the area of the maxillary right tuberosity. The etiology of the enlargement had been proposed to be trauma the patient received to the right side of his face in April, 1972, which resulted in a fracture of the zygoma.

A swelling of the buccal cortex extending from the maxillary right second molar to the hamular notch was clinically apparent. The overlying mucosa was normal in color and texture. Panographic radiographs revealed an intrabony mixed radiopacity and radiolucency which extended superiorly to approximate the floor of the orbit and anteriorly to the maxillary first molar. The lesion

had resulted in an apical divergence of the second and third maxillary molar teeth (Figure 1). The patient's records contained a panorex radiograph taken at the time of the zygomatic fracture in April, 1972, which revealed the presence of a mass encroaching upon the maxillary antrum (Figure 2). Unfortunately, this lesion was not noted before the second panorex radiograph was made in May, 1977.

On 16 June, 1977, with the patient under intravenous sedation and local anesthesia a biopsy procedure which included removal of the maxillary second and third molars was performed. This included all of the lesion except for a portion in close association with the maxillary first molar trifurcation.

The specimen consisted of two normal maxillary molar teeth and several irregular masses of soft tissue, the latter of which presented with a peculiar gelatinous configuration on gross examination. The histologic analysis revealed a rather uniform picture of relatively acellular, loosely arranged tissue consisting dominantly of an amorphous, irregular ground substance. Interposed were collagen fibers, spindle-shaped and stellate cells, blood vessels and, rarely, a few small nests of odontogenic epithelium. The cells did not exhibit any of the features associated with abnormal or malignant activity. The diagnosis was odontogenic fibromyxoma (Figure 3).

After diagnosis the patient underwent a more definitive second procedure in which the maxillary first molar and the associated remaining tumor tissue were removed. The previous operative site was re-explored and no evidence of residual tumor was found. The histologic diagnosis following the second procedure was also odontogenic fibromyxoma.

#### Discussion

The odontogenic fibromyxoma is a tumor of relatively slow growth.

1-3

This is demonstrated by the well-documented growth of this lesion from April, 1972, to May, 1977. The superimposition of trauma to the area of the lesion apparently did not influence the growth rate. Treatment of this tumor is controversial and dependent in large degree upon the anatomical extent of the lesion. While the tumor in this case was quite extensive, it was not found to invade the maxillary antrum. The lesional material separated easily from the surrounding bone and presented no difficulty in enucleation. The antrum was exposed only during the second surgical procedure at the peri-apices of the first molar roots.

Since the fibromyxoma is a benign tumor, the authors would advocate conservative treatment by enucleation and curettage for intrabony lesions which have not infiltrated associated soft tissues. This approach would necessitate close postoperative follow-up due to the reported propensity of the <sup>2</sup> lesion to recur. If recurrence should present a problem, one could then resort to a more radical surgical procedure. A six month postoperative radiograph in this case revealed no evidence of recurrence of the tumor (Figure 4). Although the odontogenic fibromyxoma is usually associated with a missing or impacted tooth and may cause pain or paresthesia, none of these characteristics were present in this case.

#### Summary

A case of odontogenic fibromyxoma of over five years duration which was apparent roentgenographically, but not diagnosed at the time the patient underwent treatment for a fractured zygoma of the ipsilateral side, is presented. The rate of growth did not appear to be significantly altered by the incidence of trauma. The tumor was successfully treated by enucleation and curettage with removal of the associated teeth. No evidence of recurrence is noted six months postoperatively.

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## Legend of Illustrations

### Figure 1

Radiograph of tumor, 1 May 1977, showing mixed radiopacity and radiolucency extending from the tuberosity area to the mesial aspect of the maxillary first molar.

### Figure 2

Radiograph of tumor, April 1972, showing divergence of roots of maxillary 2nd and 3rd molars with encroachment upon the antrum.

### Figure 3

Photomicrograph of maxillary tumor showing loose cellular arrangement and nidus of odontogenic epithelium. Note fibrillar processes and paucity of cellular nuclei. (Magnification x 250)

### Figure 4

Radiograph six months following excision of tumor shows no evidence of recurrence.



Fig. 1



Fig. 2

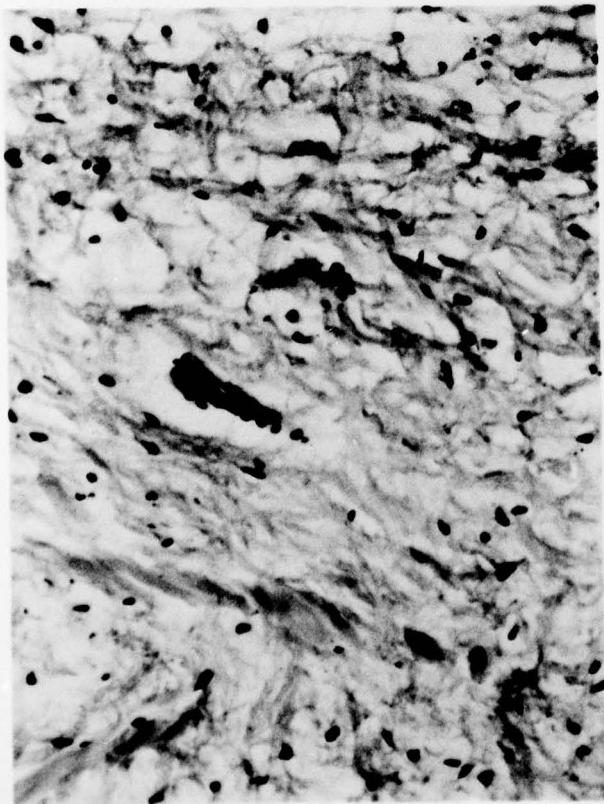


Fig. 3

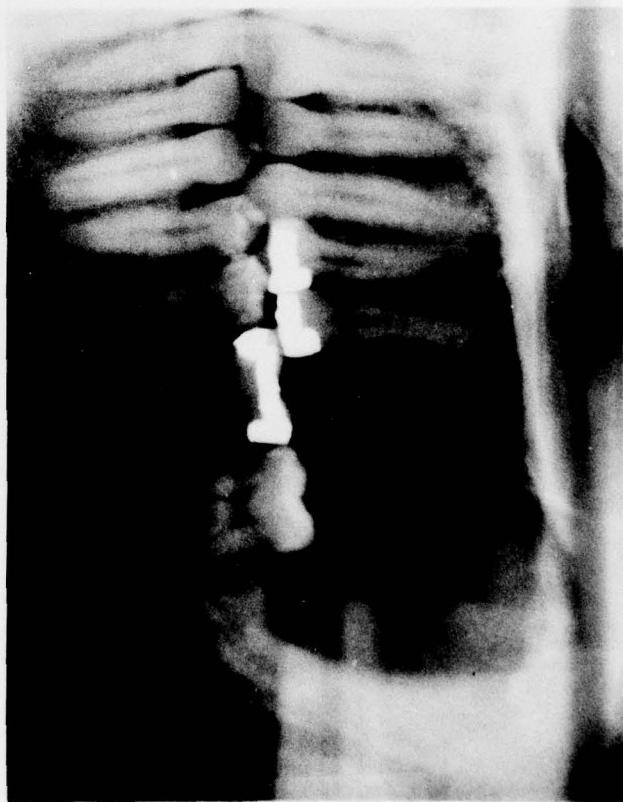


Fig. 4